



6712-01

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[CG Docket No. 17-59; FCC 17-151]

Advanced Methods to Target and Eliminate Unlawful Robocalls

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, Commission issues new rules that protect consumers from unwanted robocalls by permitting voice service providers to proactively block telephone calls when the subscriber of a phone number requests that calls purporting to originate from that number be blocked, and when calls purport to originate from three categories of unassigned phone numbers: invalid numbers, valid numbers that are not allocated to a voice service provider, and valid numbers that are allocated but not assigned to a subscriber. While such calls may appear to be legitimate to those who receive them, they can result in fraud or identity theft. To combat these scams, the new rules expressly authorize voice service providers to block these robocalls without running afoul of the FCC's call completion rules. To minimize blocking of lawful calls, the Commission encourages voice service providers that elect to block calls to establish a simple way to identify and fix blocking errors. The rules also prohibit providers from blocking 911 emergency calls.

DATES: Effective **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

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SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Report and Order*, in CG Docket No. 17-59; FCC 17-151, adopted on November 16, 2017 and released on November 17, 2017. The full text of this document will be available for public inspection and copying via ECFS, and during

regular business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington, DC 20554. The full text of this document and any subsequently filed documents in this matter may also be found by searching ECFS at: <http://apps.fcc.gov/ecfs/> (insert CG Docket No. 17-59 into the Proceeding block). The Further Notice of Proposed Rulemaking (*FNPRM*) that was adopted concurrently with the Report and Order is published elsewhere in the *Federal Register*.

FINAL PAPERWORK REDUCTION ACT OF 1995 ANALYSIS

The *Report and Order* does not contain any new or modified information collection requirements subject to the Paperwork Reduction Act of 1995, Pub. L. 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Pub. L. 107-198, *see* 44 U.S.C. 3506(c)(4).

CONGRESSIONAL REVIEW ACT

The Commission sent a copy of the *Report and Order* to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

SYNOPSIS

1. In the *Report and Order*, the Commission takes another important step in combatting illegal robocalls by enabling voice service providers to block certain calls before they reach consumers' phones. Specifically, the Commission adopts rules allowing providers to block calls from phone numbers on a Do-Not-Originate (DNO) list and those that purport to be from invalid, unallocated, or unused numbers. Providers have been active in identifying these calls and there is broad support for these rules. At the same time, the Commission establishes safeguards to mitigate the possibility of blocking desired calls.
2. Caller ID spoofing is often the key to making robocall scams work. Generally, Caller ID services permit the recipient of an incoming call to know the telephone number of the calling party, and in some cases a name associated with the number, before the recipient answers the call. But Caller ID information can be altered or manipulated, *i.e.*, spoofed, so that the name or number displayed to the called party does

not match that of the actual subscriber or the actual originating number. Though callers can use spoofing to mislead or even defraud the called party, there are legitimate uses for spoofing.

3. Congress passed the 2009 Truth in Caller ID Act to “address the growing problem of Caller ID spoofing done for fraudulent or harmful purposes.” Congress limited the spoofing prohibition to the knowing transmission of misleading or inaccurate Caller ID information “with the intent to defraud, cause harm, or wrongfully obtain anything of value,” except where such transmission is determined to be exempt by the Commission.

4. Despite these protections, consumers still receive an unacceptably high volume of illegal robocalls. To combat the robocall problem in a coordinated way, industry established the Robocall Strike Force (Strike Force) in 2016. The Strike Force includes representatives from providers of traditional landline, mobile, and Voice over Internet Protocol (VoIP) services, handset manufacturers, operating system developers, and VoIP gateway providers. The Strike Force has said that “robocalls are best addressed in a holistic manner through deployment of a wide variety of tools by a broad range of stakeholders” that includes industry blocking of calls. On October 26, 2016, it published the Robocall Strike Force Report (Strike Force Report). The Strike Force specifically asked the Commission to provide guidance on when providers may block a call that the provider believes is illegal.

5. The Consumer and Governmental Affairs Bureau (Bureau) addressed one of the Strike Force’s requests in 2016 by clarifying that voice service providers may block calls using a spoofed Caller ID number if the number’s subscriber requests that they do so. Following that initial guidance, the Strike Force Report sought additional clarification regarding the legality of certain provider-initiated call blocking. Specifically, it sought clarification that: (1) providers may block calls where the Caller ID shows an unassigned number; and (2) providers may block calls that the provider has determined to be illegal robocalls, so long as the provider takes reasonable steps to confirm that the calls are illegal.

6. In the March 2017 *Advanced Methods NPRM and NOI*, document FCC 17-24, published at 82 FR 22625, May 17, 2017, the Commission sought comment on whether to take certain steps to facilitate voice service providers’ blocking of illegal robocalls. In the *Advanced Methods NPRM and NOI*, the

Commission proposed rules to allow voice service providers to block telephone calls when the subscriber of a phone number requests that calls purporting to originate from that number be blocked, and when calls purport to originate from three categories of phone numbers: invalid numbers, valid numbers that are not allocated to a voice service provider, and valid numbers that are allocated but not assigned to a subscriber.

7. *Call Completion Considerations.* The Commission has generally found call blocking by voice service providers to be unlawful. The Commission also made clear that it is unlawful for providers to block VoIP-Public Switched Telephone Network (PSTN) traffic, and for interconnected and one-way VoIP providers to block voice traffic to or from the PSTN. The Commission has allowed call blocking only in “rare and limited circumstances.”

Discussion

8. In the *Report and Order*, the Commission adopts rules to give voice service providers the option of blocking illegal robocalls in certain, well-defined circumstances. By doing so, the Commission furthers its goal of removing regulatory roadblocks and gives industry the flexibility to block illegal calls. At the same time, the Commission affirms its commitment to protect the reliability of the nation’s communications network and ensure that provider-initiated blocking helps, rather than harms, consumers. These rules outline specific, well-defined circumstances in which voice service providers may block calls that are highly likely to be illegitimate because there is no lawful reason to spoof certain kinds of numbers. Thus, a provider who blocks calls in accordance with these rules will not violate the call completion rules. Conversely, a provider that blocks calls that do not fall within the scope of these rules may be liable for violating the Commission’s call completion rules.

Blocking at the Request of the Subscriber to the Originating Number

9. First, the Commission codifies the Bureau’s earlier clarification that providers may block calls when they receive a request from the subscriber to which the originating number is assigned, *i.e.*, a DNO request. The *2016 Guidance Public Notice*, document DA 16-1121, made clear that voice service providers—whether providing such service through TDM, VoIP, or CMRS—may block calls purporting to be from a telephone number if the subscriber to that number requests such blocking in order to prevent

its number from being spoofed. The Bureau concluded that where the subscriber did not consent to the number being used, the call was very likely made to annoy and defraud, and therefore, no reasonable consumer would wish to receive such a call. The Commission agrees and finds such DNO calls highly likely to be illegal and to violate the Commission's anti-spoofing rule, with the potential to cause harm, defraud, or wrongfully obtain something of value.

10. The record shows broad support among consumer groups, providers, government, and callers for blocking DNO calls. Consumers Union *et. al.* emphasizes the urgent need for providers to take action against spoofed calls, stating, "DNO is one of several promising tools that they should implement to help address the problem." Several commenters note the positive results of DNO trials conducted by members of the Strike Force.

11. ZipDX and others claim that gains from blocking DNO numbers will be temporary, because those making illegal robocalls will simply choose other numbers to spoof when their calls are blocked. The Commission disagrees that this possibility negates the demonstrated benefits of such blocking. Allowing providers to block spoofed calls from high-profile numbers, such as IRS phone numbers, that are among those most likely to lure consumers into scams will substantially benefit consumers and help entities that make DNO requests control the integrity of their phone numbers. The Commission believes that codifying the Bureau's 2016 guidance in the form of a rule gives providers greater certainty that blocking calls at the request of the subscriber is lawful and provides an incentive to engage in this kind of beneficial blocking.

12. *Criteria for Blocking DNO Numbers.* In its comments, USTelecom suggests five criteria used by the Industry Traceback Group (ITB) to evaluate numbers to determine whether they should be blocked, namely:

a candidate number must: 1) be inbound-only; 2) be currently spoofed by a robocaller in order to perpetrate impersonation-focused fraud; 3) be the source of a substantial volume of calls; 4) have authorization for participation in the DNO effort from the party to which the telephone number is assigned; and/or 5) be recognized by consumers as belonging to

a legitimate entity, lending credence to the impersonators and influencing successful execution of the scam.

The Commission finds that for purposes of the rule, only two of these criteria are necessary. The number must be used for inbound calls only, and the subscriber to the number must authorize it to be blocked.

The Commission agrees with the ITB recommendation that both the subscriber making the request and the provider receiving the request validate that the number is used for inbound calls only. The Commission will not require the subscriber or the provider to determine whether the number is currently being spoofed, is the source of a substantial volume of calls, or is recognized by consumers. While the Commission believes the additional criteria may be helpful in some circumstances, they would impose too high a barrier for inclusion in the DNO list. In addition, the Commission does not want to impose a potentially burdensome analysis requirement on providers that might discourage them from blocking inbound-only numbers at the request of the subscriber.

13. *Coordination of Effort.* The Commission agrees with Consumers Union *et. al.* that “[m]uch responsibility rests with the providers to ensure that DNO works as well as possible” through broad industry participation. While full industry participation is not required to achieve positive results, having more providers block a number will allow fewer calls purporting to be from that number to go through. Commenters note that providers must coordinate their efforts for this type of call blocking to be used effectively. For example, Sprint comments that, while it supports this type of blocking and participated in the collaborative effort to block spoofed IRS numbers, “there are currently no automated systems in place to expand the scale of such projects industry-wide or to accommodate much larger numbers of customers requesting blocking.” USTelecom points out the inefficiency of requiring subscribers “requesting DNOs to be forced to make individual requests to multiple providers.” ZipDX suggests that the originating provider is in the best position to block these kinds of calls.

14. Other commenters, however, suggest that providers expand their existing ways of sharing information from the test cases and other initiatives to support this effort. As Comcast comments, “[p]articipants in the Strike Force have set up an ad hoc shared list of numbers that should not be

originated and can add more for review.” USTelecom comments that its “Industry Traceback Group has been facilitating a targeted, centralized, and coordinated DNO trial and stands ready to continue to evolve industry efforts on this front going forward.”

15. The Commission strongly encourages providers to continue to work cooperatively to share information about any inbound-only numbers for which the subscriber has requested that the number be blocked. At this time, the Commission declines to prescribe a sharing mechanism, especially in light of industry’s existing efforts at coordination. The Commission emphasizes that safeguards must be put in place to prevent numbers used for outbound calls from being wrongly added to the DNO list, whether from hacking, honest mistakes, or some other cause, especially for calls made to emergency services. The Commission encourages industry to continue developing its methods for implementing DNO and encourages providers that choose to do such blocking to establish a mechanism for timely removal of erroneous blocks.

16. *Resellers.* Finally, the Commission agree with TracFone that wireless resellers may pass along subscriber requests to the underlying carrier that the subscriber’s inbound-only number be blocked. The Commission sees no reason on this record to not allow wireless reseller subscribers to participate in the DNO effort.

Calls Purporting to Originate from Unassigned Numbers

17. The Commission next finds that providers may initiate blocking where the call purports to originate from a number that is unassigned. Use of an unassigned number provides a strong indication that the calling party is spoofing the Caller ID to potentially defraud and harm a voice service subscriber. Such calls are therefore highly likely to be illegal. The Commission identifies three categories of unassigned numbers that it determines can be reasonably subject to blocking: (1) numbers that are invalid under the North American Numbering Plan (NANP); (2) numbers that have not been allocated by the North American Numbering Plan Administrator (NANPA) or the Pooling Administrator (PA) to any provider; and (3) numbers that the NANPA or PA has allocated to a provider, but are not currently used. Providers may block calls purporting to be from numbers that fall into any one of these three categories.

Calls Purporting to Originate from Invalid Numbers

18. Providers may block calls purportedly originating from numbers that are not valid NANP numbers. Examples of such numbers include those that use an unassigned area code; that use an abbreviated dialing code, such as 911 or 411, in place of an area code; that do not contain the requisite number of digits; and that are a single digit repeated, such as 000-000-0000, with the exception of 888-888-8888, which is an assignable number. With a few important exceptions detailed below, the record generally supports the assumption that, because these numbers are not valid, a subscriber could not lawfully originate calls from such numbers and these calls should be blocked. Providers, however, must take care that they do not block calls that purportedly originate from valid numbers, especially emergency calls.

19. The record supports the proposal that no caller would spoof an invalid number for any lawful purpose; for example, unlike a business spoofing Caller ID on outgoing calls to show its main call-back number, invalid numbers cannot be called back. Thus, the Commission does not see a significant risk to network reliability in allowing providers to block this category of calls. ATIS suggests that benefits will be temporary because “widespread blocking of invalid and unallocated numbers could have an unintended negative consequence by driving bad actors to focus their efforts on spoofing assigned/valid numbers.” Consumers Union *et. al.*, however, comment that blocking such calls is imperative, because “[c]onsumers do not expect that their phone service would be the means through which illegal and fraudulent scams enter their homes, and providers should not be obligated to deliver illegal messages that could cause consumers harm.” In addition, blocking calls purporting to be from invalid numbers “holds the greatest potential for success in the short term and likely would be the easiest to implement.”

20. The Commission rejects suggestions that blocking calls purporting to originate from invalid numbers creates “significant possibilities of false positives.” Although ZipDX claims that “a significant number” of private branch exchanges (PBXs) “are not properly configured” to display an accurate Caller ID and that Caller ID information could theoretically be “unintentionally altered” during a call’s transmission, the record belies such claims. Instead, the record demonstrates that the risk of erroneously

blocking such calls is very low and should not be a barrier to allowing providers to block calls purporting to be from invalid numbers. Indeed, the Commission agrees with USTelecom that this small risk simply requires providers to exercise “caution when instituting blocking in the network.” And the Commission reiterates that caution to businesses with PBXs: The responsibility to properly configure PBX equipment lies with the owner, and those spoofing invalid numbers (whether intentionally or not) have the ability to ensure that their calls go through by properly reconfiguring that equipment.

21. *Identifying Invalid Numbers.* Neustar, which currently is the NANPA and PA, comments that “information for invalid numbers [is maintained] within the [NANP], and the industry has other sources to identify invalid numbers such as ATIS’s Industry Numbering Committee Thus, service providers already have access to the information they need” for this kind of blocking. Comcast similarly states that “[v]oice providers generally have ‘intimate knowledge of the [NANP]’ and can ‘easily identify numbers that fall into this category,’ including numbers that use an N11 code in place of an area code or that repeat a single digit.” In light of the industry’s assurance that it can confidently identify invalid numbers, the Commission sees no need to further define or limit what is meant by “a number that is not a valid [NANP] number.” The Commission encourages providers to conduct tests or simulations before blocking calls purporting to originate from invalid numbers to verify their methods.

Calls Purporting to Originate from Numbers not Allocated to any Provider

22. The Commission finds that providers may block calls purportedly originating from numbers that are valid but have not yet been allocated by the NANPA or the PA to any provider. Though these numbers are valid under the NANP, the Commission finds that calls purporting to use unallocated numbers are similar to calls purporting to use invalid numbers in that no subscriber can actually originate a call from any of these numbers, and the Commission sees no lawful reason to spoof such numbers because they cannot be called back. Calls purporting to originate from such numbers therefore are highly likely to be illegal.

23. Here, the provider must have knowledge that a certain block of numbers has not been allocated to any provider and therefore that the number being blocked could not have been assigned to a subscriber.

The record generally supports allowing permissive blocking of calls purporting to be from unallocated numbers. For example, ATIS points out that “no subscriber can actually originate a call from these unallocated central office codes and it is unlikely that there is any legitimate, lawful reason to.”

24. Parties opposing this type of call blocking generally do so based on implementation difficulties and the risk of blocking legal calls. For example, NCTA warns that the proposal “could unintentionally result in harm to consumers and should not be adopted at this time,” and ZipDX cautions that “[t]he unintended consequences of these blocks (false positives) are potentially quite troublesome and far outweigh any good that would result from successful robocall blocks.” Several commenters also note that, if providers block unallocated numbers, then “illegal robocallers could simply shift to spoofing assigned numbers.”

25. Commenters do not agree on the potential volume of calls that might be blocked under this rule. While ZipDX says the “fraction of complaints” from unassigned numbers is “miniscule,” USTelecom states that “the scale of numbers at issue in the Commission’s latter two proposals [blocking calls from unallocated and unassigned numbers] are potentially enormous—encompassing 3 billion telephone numbers.” Transaction Network Services (TNS) attempts to strike a middle ground, suggesting that “[w]hile there is a large number of unallocated telephone numbers (over 33 million) that have been flagged as making calls, the volume of call activity from these numbers relative to all negative robocalling is very small.” TNS concludes that blocking “this subset of numbers has significant, but limited value.” In contrast, a recent Commission enforcement action found that one robocaller made a staggering 21,582,771 spoofed robocalls in a three-month period; the caller ID for each of the robocalls examined by the FCC falsely identified a phone number that was not assigned to any carrier or subscriber at the time the calls were made. Although the number of complaints about calls from unassigned numbers may be small, the Commission agrees with USTelecom that the potential value of blocking such calls is enormous. Consumers will benefit from this type of blocking because the calls are highly likely to annoy or defraud.

26. *Defining Unallocated Numbers Subject to Blocking.* Some commenters emphasize that a permissive rule does not require providers to identify and block every unallocated number, but rather simply allows a provider to block calls purporting to be from those numbers it can verify are unallocated. The Commission agrees. Providers may block calls purporting to be from unallocated numbers and should limit themselves to blocking only those numbers that they can verify are unallocated. Providers may not be able to identify the complete set of all unallocated numbers for purposes of call blocking. Accordingly, voice service providers might be unable to block calls purporting to originate from every unallocated number, but this shortcoming would not result in the blocking of legal calls.

27. *Obtaining Unallocated Number Information.* The Commission does not prescribe a technical solution for identifying and communicating information about unallocated numbers at this time. The record shows consensus that, while information on unallocated numbers is available to providers, no currently available source identifies all unallocated numbers in real time and that “the NANPA does not administer codes outside the United States, specifically in Canada and Caribbean countries, or toll-free numbers.” Many commenters suggest that providers should use a new, centralized database as a resource for identification of unallocated numbers.

28. Neustar lists categories of unallocated numbers that should not initiate calls, including “telephone numbers in: (1) unallocated area codes in the NANP; (2) unallocated geographic Central Office (“CO”) codes (NPA-NXX) in the United States; and (3) unallocated non-contaminated thousands-blocks (NPA-NXX-X) in the United States.” ATIS elaborates on the issue of contaminated thousands-blocks, stating that available thousands-blocks “publicly posted on the PA website . . . could contain up to 100 assigned numbers within those blocks.” Therefore, providers blocking calls from contaminated blocks could erroneously block calls purporting to originate from assigned numbers. Providers that block calls purporting to originate from assigned numbers may be liable for violating the call completion rules.

29. Several commenters propose enhancements to the information provided by the NANPA and the PA. Neustar suggests that the NANPA and the PA “provide on their websites: (1) ‘Blacklists’ of unallocated numbers that should not be making calls; and (2) ‘Whitelists’ of allocated area codes in the

NANP, allocated geographic CO codes in the United States, and allocated thousands-blocks in the United States.” Comcast takes a similar approach, suggesting that the databases “(1) more clearly identify which numbers have not yet been allocated and (2) are updated immediately to reflect any new allocations as they occur.”

30. The Commission believes that providers, the NANPA, and the PA are in the best position to determine how to share information about unallocated numbers. The Commission encourages these parties to work together on whether and how to improve the availability of this information for blocking purposes. At the same time, the Commission cautions against blocking calls purporting to originate from allocated numbers and encourages providers to examine their practices carefully to verify that they are not inadvertently doing so. A provider that erroneously blocks calls purporting to originate from allocated numbers may be liable for violating the call completion rules.

Calls Purporting to Originate from Numbers that are Allocated but Unused

31. The Commission finds that providers may block calls purportedly originating from numbers that are allocated to a provider by the NANPA or PA, but are unused, so long as the provider blocking the calls is the allocatee of the number or has obtained verification from the allocatee that the number is unused at the time of the blocking. For these purposes, an “unused” number is a number that is not assigned to a subscriber or otherwise set aside for outbound call use. As with invalid numbers and unallocated numbers, calls cannot originate from such a number, and the Commission foresees no lawful purpose for intentionally spoofing a number that is unused and thus cannot be called back.

32. The record shows mixed support for allowing providers to block these kinds of calls. For example, EPIC points out that “because they are not assigned anyone using them without the provider’s knowledge is almost certainly engaging in unlawful activity.” Many commenters, however, express concerns about legal calls being blocked, similar to the concerns about unallocated number call blocking, because “the status of numbers is always changing.” The record also shows “potentially thorny implementation issues” for blocking calls from unused numbers, similar to but greater in scale than those

identified for unallocated numbers. In addition, the argument concerning the likely reaction of robocallers to the blocking of unallocated numbers detailed above applies here as well.

33. *Obtaining Unused Number Information.* The record clearly shows “an industry-wide recognition that there is currently no technical solution that allows providers to accurately and promptly identify numbers that have been allocated to a carrier but not yet assigned to a subscriber.” Commenters assert that without such a database, providers cannot be certain of the status of numbers not assigned to them. The Number Portability Administration Center (NPAC) and other existing databases do not show the details of provider assignment of numbers and are not capable of identifying reassigned numbers. Microsoft claims that such blocking, “if not supported by use of a 100 percent reliable real-time database (which does not exist), could prevent outgoing domestic call completion for consumers who are assigned newly-activated telephone numbers.”

34. The record reveals that creating such a database would be difficult. Neustar comments that providers “often consider such information to be competitively sensitive.” In addition, the information changes very quickly, “as providers are constantly assigning new numbers to subscribers or are de-assigning numbers when a subscriber leaves and decides not to take advantage of number portability.” While the FTC encourages providers to share this information, providers oppose mandatory information sharing. CTIA cautions that creating a centralized database “is technically challenging and would divert resources away from innovative solutions.”

35. The Commission concludes, however, that a narrowly tailored rule could be implemented without a database. Noble Systems makes a distinction between allowing providers to block calls purported to originate from numbers allocated to that provider, which the provider knows to be unused, and requiring providers to share information to block all unused numbers. Regarding their own numbers, “each individual service provider certainly knows which telephone numbers it has been allocated but not yet assigned to subscribers.” As such, the rule permits providers to block on this basis. Should the industry develop more comprehensive information sources that would facilitate broader blocking of calls purported to originate from unused numbers, the rule would also permit that kind of blocking.

36. *Scope of Rule.* The record shows significant obstacles to implementing a rule requiring all providers to pool their information, yet where the allocatee of the number in question is the only provider able to block calls purporting to originate from that number, “the value of the initiative would be significantly diminished and would create a disadvantage for smaller providers.” With fewer providers blocking each number, fewer illegal calls will be blocked overall.

37. The Commission will not require providers to share competitively sensitive information on an industry-wide basis, nor will it limit providers to blocking only unused numbers they have been allocated. The Commission therefore defines the scope of this rule to allow providers to block calls purporting to originate from an unused number, so long as the provider blocking the call either (1) is the allocatee of the number and has confirmed the number is unused, or (2) has verified the unused status of the number with the allocatee at the time of the blocking. This gives providers the flexibility to share information if they wish to, and the Commission encourages providers to do so.

38. In addition, this is a permissive rule. CTIA points out that such “[a] voluntary regime will allow carriers that develop the ability to identify these numbers to block calls originating from them without forcing carriers to develop capabilities they do not currently possess.”

39. *Types of Used Numbers.* Many commenters indicate that legal calls may be made from what appear to be unassigned numbers. For example, INCOMPAS points out that “many legitimate callers do not originate calls on the [PSTN] and, therefore, do not have telephone numbers.” Commenters identify three specific kinds of unassigned numbers that should not be blocked because they are being used to make legal outbound calls: intermediate numbers, administrative numbers, and proxy numbers. The Commission acknowledges this concern and the rule is clear that providers should not block any type of number that, although it is not assigned to a subscriber, is used for these lawful purposes. The Commission encourages providers to examine the status of their numbers before blocking calls that purport to originate from unused numbers to verify that they are not inadvertently blocking calls that fall outside the scope of this rule, which would risk liability for violating the call completion rules.

Other Issues

40. *Emergency Calls.* The Commission makes clear that the rules do not authorize the blocking of calls to 911 under any circumstance. The Commission notes that the NANP itself contemplates certain non-standard numbers to facilitate emergency calling; the NANP, for example, “permits the use of ‘911’ as the [Numbering Plan Area code] for emergency calls from non-initialized mobile devices.” To make it abundantly clear, nonetheless, that voice providers should not block such calls, the Commission makes clear these rules do not permit the blocking of emergency calls except as otherwise expressly permitted by the Commission’s rules.

41. *International Calls.* In the *Advanced Methods NPRM and NOI*, the Commission sought comment “on whether an internationally originated call purportedly originated from a NANP number should be subject to these rules, whereas an internationally originated call showing an international number would be beyond the scope of this rule.” The Commission adopts this proposal. The Commission agrees with Neustar that it should apply to international calls purporting to use NANP numbers “the same blocking rules applicable to domestic originated calls.” Many illegal robocalls originate from overseas call centers, and excluding such calls that purport to use NANP numbers from the ambit of the rule would create an exception that threatens to swallow the rule. In contrast, international calls from purported non-NANP numbers would not, by definition, follow the NANP numbering scheme and thus are beyond the scope of this proceeding.

42. The Commission agrees with commenters that internationally originated calls may have lawful reasons to use a NANP number. VON, for example, suggests “a US-based user of a service may be traveling in Europe but uses their service to make Wi-Fi-based calls (and have their US caller ID shown).” And the Commission agrees with Microsoft that it must “avoid inadvertently authorizing international call blocking.” But the Commission disagrees with ZipDX’s apparent suggestion that some possibility of international call blocking means the Commission must abandon its efforts. Because the Commission authorizes blocking only for purported NANP numbers, it sees no reason why the actual origination point of the call would bear on whether it is blocked. In other words, the Commission finds the likelihood of blocking a legitimate call is minimal—no matter its origin. And the Commission

reiterates that the rules do not authorize the blocking of any international call purporting to use a valid NANP number assigned to that user.

43. *Subscriber Consent.* The Commission does not require consumer opt-in for providers to block the specific types of calls addressed herein. The Commission believes that no reasonable consumer would want to receive the calls the Commission has determined may be subject to blocking. For call blocking to be most effective, it must be applied throughout the calling network. An opt-in requirement would thwart providers' efforts.

44. The record shows support for allowing providers to block these specific types of spoofed calls without requiring consent from the subscriber. Some commenters emphasize the limited scope of calls that do not require consent. ITTA agrees with the Commission's reasoning that "obtaining opt-in consent from subscribers would add unnecessary burdens and complexity, . . . may not be technically feasible for some providers" and "would also add unnecessary delays." EPIC comments that "proactive blocking" would benefit consumers, "especially those that rely on landlines, [who] may not have or use caller ID."

45. Consumers Union *et. al.* propose that providers should obtain consent from all consumers before blocking calls other than those purporting to originate from DNO numbers, but, as stated above, the Commission does not believe any reasonable consumer would want to receive these calls. The administrative burden of tracking individual opt-in responses would likely be a disincentive to blocking.

46. While providers are not required to obtain subscriber consent before blocking these calls, the Commission emphasizes that the types of calls that can be blocked are very limited. The Commission agrees with the recommendation from the Consumer Advisory Committee (CAC) and encourages providers to inform their customers about the features and risks of their own call blocking programs.

47. *Call Completion Rates.* The Strike Force requested that the Commission amend its call completion rules to ensure that providers can block illegal calls without those blocked calls being held against them in calculating call completion rates. The Commission agrees that providers do not need to count these blocked calls for purposes of calculating their call completion rates on FCC Form 480 and therefore the Commission interprets the rules and the form to not require inclusion of calls blocked in

accordance with the rules adopted here. Reporting carriers may exclude these calls to the extent that they are able to identify them.

48. The record shows significant support for excluding these calls from the call completion calculations to “incentivize carriers to participate in voluntary blocking when appropriate and consistent with the rules.” CenturyLink comments that “[w]ithout this protection, carriers may be unwilling to use any of the tools that may be adopted in the proceeding and the consumer benefits the Commission hopes to achieve may not be realized.” Consumers Union *et. al.* agrees that “the calls that are blocked according to these guidelines should be exempt from call completion rates.”

49. Notwithstanding this support for the concept of excluding blocked calls from call completion rate calculations, it might not currently be possible for all providers to identify blocked calls. Originating providers required to file call completion reports have no standard mechanism to identify calls that are blocked intentionally under these rules by downstream providers and distinguish them from calls that are not completed for other reasons. Further, NTCA suggests that excluding such calls from call completion would be premature “until the definitions and practical considerations noted above are addressed and standardized by industry and the Commission.”

50. Given the inability of all providers who must file call completion reports to identify blocked calls in every instance and the Commission’s revisiting of the rural call completion requirements in a separate rulemaking proceeding, the Commission does not believe that requiring exclusion of these calls is appropriate at this time. The Commission instead simply notes that providers subject to the call-completion reporting rules may, but are not required to, exclude blocked calls from the recordkeeping and reporting requirements to the extent they can identify such calls.

51. *CPNI Rules.* In the *Advanced Methods NPRM and NOI*, the Commission sought comment on whether there are concerns about sharing DNO request information and whether any clarifications or rule changes could be helpful. Some commenters asked the Commission to clarify the applicability of section 222 of the Act, and the implementing rules, in order to allow sharing of robocall information for traceback purposes or sharing of a subscriber’s request to block an inbound-only number.

52. USTelecom notes that “the sharing of CPNI by telecommunications providers is essential to ensuring accurate and thorough call traceback efforts in multiple providers’ networks related to suspicious calling events.” The Commission notes that traceback efforts are aimed at identifying persons who make illegal robocalls, including calls that involve fraud in violation of the Truth in Caller ID Act. The FTC comments that “information sharing by providers at the subscriber’s request appears to be consistent” with the CPNI rules. The Commission agrees. Section 222 of the Act and the implementing rules explicitly allow telecommunications carriers to use, disclose, or permit access to CPNI obtained from its customers, either directly or indirectly through its agents, “to protect the rights or property of the carrier, or to protect users of those services and other carriers from fraudulent, abusive, or unlawful use of, or subscription to, such services.” Furthermore, the Commission agrees with the FTC that when a subscriber requests that the carrier block calls purporting to be from the subscriber’s inbound-only number, “the subscriber is almost certainly seeking to have the number blocked by as many providers as possible.” Therefore, such a request should be understood as authorizing the carrier to share that request with other carriers as permitted by section 222(c)(1) of the Act. Thus, voice service providers are free to share DNO requests as necessary to block calls in the limited circumstances identified in the *Report and Order*.

53. *Removing Blocks on Valid Numbers.* A challenge mechanism may be needed for voice service providers that block calls given the small possibility of blocking legitimate calls. AARP suggested “[i]t would seem to be prudent to have the needed procedures to allow consumers to quickly counteract inadvertent blocking in place prior to the commencement of the general robocall blocking program.” The Commission’s Consumer Advisory Committee similarly states that providers and consumers should “work collaboratively to develop processes and solutions whereby unintended blocking of legitimate callers can be remedied in a timely and efficient manner.” The Commission encourages providers that block calls to establish a means for a caller whose number is blocked to contact the provider and remedy the problem. Specifically, the Commission encourages providers that block calls in accordance with these rules to provide a way for subscribers to challenge a blocked number using a simple method that is easy

for the average subscriber to understand. The Commission also encourages providers to quickly resolve the matter so subscribers making legitimate calls may resume doing so speedily.

54. As a reminder, the call completion rules require voice service providers to complete calls and they should therefore not block legitimate calls. The Commission also reminds callers that the Commission's complaint process is available when calls that fall outside the scope of these rules are improperly blocked.

55. *Definition of "Illegal Robocall."* Although the *Advanced Methods NPRM and NOI* sought comment on the definition of "illegal robocall" for the purposes of this proceeding, the Commission declines to adopt a definition here given that none of the rules adopted here rely on such a definition. Indeed, the record shows confusion regarding how the proposed definition of "illegal robocall" should apply to the call blocking rules. Sprint comments that providers cannot determine whether a call meets the definition of an illegal robocall before blocking it, because "[u]nlike spam prevention in e-mail, the content of a call cannot be determined before the call rings through to the customer's phone." First Orion states "the Commission clearly intends to give carriers the flexibility to prevent all illegal calls, regardless of the technology used." Similarly, the FTC suggests that the Commission use the term "illegal call" rather than "illegal robocall," because "the problematic calls here are not limited to just robocalls, but also abusive, fraudulent, or unlawful calls that are 'live.'" Because the Commission makes clear that providers need not listen to the content of calls or otherwise to determine whether a particular call is expressly illegal before blocking it, the Commission sees no reason to define the term at the present moment.

Report on Robocalling

56. To shed additional light on the issue of robocalling and inform the Commission's actions going forward, the Commission directs the Consumer and Governmental Affairs Bureau, in consultation with the Federal Trade Commission's Bureau of Consumer Protection, to prepare a report on the state of robocalling in the United States and to submit it to the Commission within one year from publication of the *Report and Order* in the *Federal Register*. This report should encompass both the progress made by

industry, government, and consumers in combatting illegal robocalls, as well as the remaining challenges to continuing these important efforts. A focus on quantitative data, including, but not limited to, calling trends and consumer complaints, will provide particular insight into the current state of the robocalling problem and how to target additional measures to help consumers avoid the fraud and annoyance that they experience.

FINAL REGULATORY FLEXIBILITY ANALYSIS

57. As required by the Regulatory Flexibility Act of 1980 (RFA), as amended, an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Advanced Methods NPRM and NOI*. The Commission sought written public comment on the proposals in the *Advanced Methods NPRM and NOI*, including comment on the IRFA. The comments received are discussed below. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

Need for, and Objectives of, the Order

58. The *Report and Order* takes another important step in combatting illegal robocalls by enabling voice service providers to block certain calls before they reach consumers' phones. In the year since August 1, 2016, the Commission has received nearly 185,000 complaints about calls that consumers did not want. Stopping illegal robocalls and the problems they cause has united industry, government, and consumer groups. Caller ID spoofing is often the key to making robocall scams work. Therefore, the rules outline specific, well-defined circumstances in which voice service providers may block calls that are highly likely to be illegitimate because there is no lawful reason to spoof certain kinds of numbers. Specifically, the *Report and Order* adopts rules allowing providers to block calls from phone numbers on a DNO list and those that purport to be from invalid, unallocated, or unused numbers. By doing so, the Commission furthers its goal of removing regulatory roadblocks and gives industry the flexibility to block illegal calls. At the same time, the Commission affirms its commitment to protect the reliability of the nation's communications network and ensure that provider-initiated blocking helps, rather than harms, consumers. A provider that blocks calls that do not fall within the scope of these rules may be liable for violating the Commission's call completion rules.

59. *Blocking at the Request of the Subscriber to the Originating Number.* In the *Report and Order*, the Commission codifies the Bureau's earlier clarification that voice service providers may block calls purporting to be from a telephone number if the subscriber to that number requests such blocking in order to prevent its number from being spoofed. Where the subscriber did not consent to the number being used, the call was very likely made with the intent to defraud, and therefore no reasonable consumer would wish to receive such a call.

60. *Calls Supposedly Originating from Invalid Numbers.* Similarly, the *Report and Order* allows providers to block calls purportedly originating from numbers that are not valid under the NANP. Examples of such numbers include those that use an unassigned area code; that use an abbreviated dialing code, such as 411, in place of an area code; that do not contain the requisite number of digits; and that are a single digit repeated, such as 000-000-0000, with the exception of 888-888-8888, which is an assignable number. No caller would spoof an invalid number for any lawful purpose; for example, unlike a business spoofing Caller ID on outgoing calls to show its main call-back number, invalid numbers cannot be called back. Providers, however, must take care that they do not block calls that purportedly originate from valid numbers, especially emergency calls.

61. *Calls Supposedly Originating From Numbers Not Allocated to Any Provider.* The *Report and Order* also allows providers to block calls purportedly originating from numbers that are valid but have not yet been allocated by the NANPA or the PA to any provider. Though these numbers are valid under the North American Numbering Plan, the Commission finds that calls purporting to use unallocated numbers are similar to calls purporting to use invalid numbers in that no subscriber can actually originate a call from any of these numbers, and the Commission sees no lawful reason to spoof such numbers because they cannot be called back.

62. *Calls Supposedly Originating from Numbers that are Allocated but Unused.* Document FCC 17-151 allows providers to block calls purportedly originating from numbers that are allocated to a provider by the North American Numbering Plan Administrator or Pooling Administrator, but are unused, so long as the provider blocking the calls is the allocatee of the number or has obtained verification from the

allocatee that the number is unused at the time of the blocking. For these purposes, an “unused” number is a number that is not assigned to a subscriber or otherwise set aside for legitimate outbound call use. As with invalid numbers and unallocated numbers, a subscriber cannot originate a call from such a number, and the Commission foresees no lawful purpose for intentionally spoofing a number that is unused and thus cannot be called back.

63. *Other Issues.* The *Report and Order* also clarifies that these rules do not permit the blocking of emergency calls except as otherwise expressly permitted by the Commission’s rules, that all calls purporting to originate from a NANP number, including international calls, are subject to these rules, and that international calls from purported non-NANP numbers would not, by definition, follow the NANP numbering scheme and thus are beyond the scope of this proceeding. It confirms that the Commission does not require consumer opt-in for providers to block these specific types of calls, clarifies that providers do not need to count these blocked calls for purposes of calculating their call completion rates, clarifies that voice service providers are free to share the CPNI necessary to block calls in the limited circumstances identified in the *Report and Order*, encourages providers to establish a means for a caller whose number is blocked to contact the provider and remedy the problem, and declines to adopt a definition of the term “illegal robocall” at the present moment.

Summary of Significant Issues Raised by Public Comments in Response to the IRFA

64. In the *Advanced Methods NPRM* and *NOI*, the Commission solicited comments on how to minimize the economic impact of the new rules on small businesses. The Commission received one comment directly addressing the IRFA and several comments addressing small business concerns. Two of the comments requested that the call blocking rules be permissive, rather than mandatory, three pertained to the administration of a database for unassigned numbers, and two addressed other issues. In addition, the Commission received two consumer comments documenting the negative impact of unwanted calls on small businesses. None of the other comments pointed out any areas where small businesses would incur a particular hardship in complying with the rules.

65. *Permissive Rules.* Both CTIA and ITTA support permissive rules. CTIA suggests that “blocking of numbers . . . should be authorized, but not required.” ITTA claims that permissive rules give providers “flexibility in how aggressively they choose to block calls.” The rules the Commission adopts here are permissive and not mandatory.

66. *Database Administration.* INCOMPAS, ITTA, and PACE suggest that a centralized database of unused numbers be created, and then suggest ways to minimize disproportionate costs to small businesses in using such a database. The Commission considered both the technical and cost issues inherent in the creations of a database and determined not to require one. Without a database, concerns about its administration are rendered moot.

67. INCOMPAS requests a mechanism that will “spare smaller providers from using additional resources to prove the legitimacy of its call traffic to other providers.” In the *Report and Order*, the Commission allows a provider to block unused numbers only if the provider blocking the calls is the allocatee of the number or has obtained verification from the allocatee that the number is unused at the time of the blocking. Therefore, if a smaller provider does not give information to other providers, its call traffic will not be blocked.

68. *Other Issues.* Commenters raise three other issues. First, INCOMPAS requests that the Commission require providers to put a mechanism in place to remove blocks on valid numbers, and that in doing so, “providers should be given discretion to adjust their policies according to their size and services.” In the *Report and Order*, the Commission urges, but does not require providers to implement such a mechanism, nor does the Commission provide specific requirements for how providers might remove blocks on valid numbers, allowing smaller providers the flexibility they request. Second, NTCA suggests that the North American Numbering Council (NANC) “may be best positioned to help clarify practical requirements” to “to assess and mitigate the costs of compliance for smaller firms.” However, industry has already established the Robocall Strike Force (Strike Force), which has produced significant documentation clarifying the practical requirements for the limited and specific types of call blocking authorized in the *Report and Order*. Blocking these calls presents a very low risk, and NANC

participation is not required to move forward at this time. Third, TNS suggests that providers be permitted to block unused numbers allocated to other providers to avoid creating “a disadvantage for smaller providers.” The record also shows that many providers view their unused number data as competitively sensitive information. In the *Report and Order*, the Commission balances these concerns by allowing, but not requiring, providers to block unused numbers allocated to other providers if they have verified the unused status of the number.

Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration

69. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA), and to provide a detailed statement of any change made to the proposed rules as a result of those comments. The Chief Counsel did not file any comments in response to the proposed rules in this proceeding.

Description and Estimate of the Number of Small Entities to Which Rules Will Apply

70. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein. The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.” In addition, the term “small business” has the same meaning as the term “small-business concern” under the Small Business Act. A “small-business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

Wireline Carriers

71. *Wired Telecommunications Carriers.* The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network

facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” The SBA has developed a small business size standard for Wired Telecommunications Carriers, which consists of all such companies having 1,500 or fewer employees. Census data for 2012 shows that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this size standard, the majority of firms in this industry can be considered small.

72. *Local Exchange Carriers (LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for local exchange services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, the Commission estimates that most providers of local exchange service are small businesses.

73. *Incumbent Local Exchange Carriers (Incumbent LECs)*. Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The closest applicable size standard under SBA rules is for the category Wired Telecommunications Carriers.

The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

74. *Competitive Local Exchange Carriers (Competitive LECs), Competitive Access Providers (CAPs), Shared-Tenant Service Providers, and Other Local Service Providers.* Neither the Commission nor the SBA has developed a small business size standard specifically for these service providers. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total,

3,083 operated with fewer than 1,000 employees. Consequently, the Commission estimates that most providers of competitive local exchange service, competitive access providers, shared-tenant service providers, and other local service providers are small entities.

75. The Commission has included small incumbent LECs in this present RFA analysis. As noted above, a “small business” under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and “is not dominant in its field of operation.” The SBA’s Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any such dominance is not “national” in scope. The Commission has therefore included small incumbent LECs in this RFA analysis, although it emphasizes that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

76. *Interexchange Carriers.* Neither the Commission nor the SBA has developed a small business size standard specifically for providers of interexchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry.” Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Consequently, the Commission estimates that the majority of interexchange carriers are small entities.

77. *Cable System Operators (Telecom Act Standard).* The Communications Act also contains a size standard for small cable system operators, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.” There are approximately 52,403,705 cable video subscribers in the United States today. Accordingly, an operator serving fewer than 524,037 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Based on available data, the Commission finds that all but nine incumbent cable operators are small entities under this size standard. Note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million. Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, the Commission is unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

78. *Other Toll Carriers.* Neither the Commission nor the SBA has developed a size standard for small businesses specifically applicable to other toll carriers. This category includes toll carriers that do not fall within the categories of interexchange carriers, operator service providers, prepaid calling card providers, satellite service carriers, or toll resellers. The closest applicable size standard under SBA rules is for Wired Telecommunications Carriers. The U.S. Census Bureau defines this industry as “establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired communications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services, wired (cable) audio and video programming distribution, and wired broadband internet services. By exception, establishments providing satellite television distribution services using facilities

and infrastructure that they operate are included in this industry.” Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that there were 3,117 firms that operated that year. Of this total, 3,083 operated with fewer than 1,000 employees. Thus, under this category and the associated small business size standard, the majority of other toll carriers can be considered small.

Wireless Carriers

79. *Wireless Telecommunications Carriers (except Satellite).* Since 2007, the Census Bureau has placed wireless firms within this new, broad, economic census category. Under the present and prior categories, the SBA has deemed a wireless business to be small if it has 1,500 or fewer employees. For the category of Wireless Telecommunications Carriers (except Satellite), Census data for 2012 show that there were 967 firms that operated for the entire year. Of this total, 955 firms had fewer than 1,000 employees. Thus, under this category and the associated size standard, the Commission estimates that the majority of wireless telecommunications carriers (except satellite) are small entities. Similarly, according to internally developed Commission data, 413 carriers reported that they were engaged in the provision of wireless telephony, including cellular service, Personal Communications Service (PCS), and Specialized Mobile Radio (SMR) services. Of this total, an estimated 261 have 1,500 or fewer employees. Thus, using available data, the Commission estimates that the majority of wireless firms can be considered small.

80. *Satellite Telecommunications Providers.* The category of Satellite Telecommunications “comprises establishments primarily engaged in providing telecommunications services to other establishments in the telecommunications and broadcasting industries by forwarding and receiving communications signals via a system of satellites or reselling satellite telecommunications.” This category has a small business size standard of \$32.5 million or less in average annual receipts, under SBA rules. For this category, Census Bureau data for 2012 show that there were a total of 333 firms that operated for the entire year. Of this total, 299 firms had annual receipts of under \$25 million.

Consequently, the Commission estimates that the majority of satellite telecommunications firms are small entities.

81. *All Other Telecommunications.* All other telecommunications comprise, *inter alia*, “establishments primarily engaged in providing specialized telecommunications services, such as satellite tracking, communications telemetry, and radar station operation. This industry also includes establishments primarily engaged in providing satellite terminal stations and associated facilities connected with one or more terrestrial systems and capable of transmitting telecommunications to, and receiving telecommunications from, satellite systems. Establishments providing Internet services or voice over Internet protocol (VoIP) services via client-supplied telecommunications connections are also included in this industry.” The SBA has developed a small business size standard for the category of All Other Telecommunications. Under that size standard, such a business is small if it has \$32.5 million in annual receipts. For this category, Census Bureau data for 2012 show that there were a total of 1,442 firms that operated for the entire year. Of this total, 1,400 had annual receipts below \$25 million per year. Consequently, the Commission estimates that the majority of all other telecommunications firms are small entities.

Resellers

82. *Toll Resellers.* The Commission has not developed a definition for toll resellers. The closest NAICS Code Category is Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry. The SBA has developed a small business size standard for the category of Telecommunications Resellers. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, 1,341 operated with fewer than 1,000 employees. Thus, under this category and the associated

small business size standard, the majority of these resellers can be considered small entities. According to Commission data, 881 carriers have reported that they are engaged in the provision of toll resale services. Of this total, an estimated 857 have 1,500 or fewer employees. Consequently, the Commission estimates that the majority of toll resellers are small entities.

83. *Local Resellers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees. Thus, under this category and the associated small business size standard, the majority of these local resellers can be considered small entities.

84. *Prepaid Calling Card Providers.* The SBA has developed a small business size standard for the category of Telecommunications Resellers. The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households. Establishments in this industry resell telecommunications; they do not operate transmission facilities and infrastructure. Mobile virtual network operators (MVNOs) are included in this industry. Under that size standard, such a business is small if it has 1,500 or fewer employees. Census data for 2012 show that 1,341 firms provided resale services during that year. Of that number, all operated with fewer than 1,000 employees. Thus, under this category and the associated small business size standard, the majority of these prepaid calling card providers can be considered small entities.

Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities

85. *The Report and Order* gives voice service providers the option of blocking illegal robocalls in certain, well-defined circumstances. These changes affect small and large companies equally, and apply equally to all of the classes of regulated entities identified above.

86. *Reporting and Recordkeeping Requirements.* The *Report and Order* clarifies the call completion rules by allowing, but not requiring, voice service providers to exclude calls blocked under these new rules from their call completion calculations, to the extent that they are aware of which calls are blocked. To do so, voice service providers that choose to exclude such calls may modify their current reporting and recordkeeping procedures already in place for performing their call completion calculations on existing FCC Form 480. This is a minor modification to an existing process, so the Commission anticipates that the impact will be minimal.

87. *Other Compliance Requirements.* Voice service providers will be permitted, but not required, to block calls purportedly originating from (1) a telephone number if the subscriber to that number requests such blocking in order to prevent its number from being spoofed; (2) numbers that purport to be NANP numbers but are not valid under the NANP; (3) numbers that are valid but have not yet been allocated by the NANPA or the PA to any provider; (4) numbers that are allocated to a provider by the NANPA or PA, but are unused, so long as the provider blocking the calls is the allocatee of the number and or has obtained verification from the allocatee that the number is unused at the time of the blocking.

Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered

88. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its approach, which may include the following four alternatives, among others: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or

reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.

89. The Commission considered feedback from the *Advanced Methods NPRM and NOI* in crafting the final order. The Commission evaluated the comments in light of balancing the goal of removing regulatory roadblocks and giving industry the flexibility to block illegal calls with its commitment to protect the reliability of the nation's communications network. Small businesses supported the proposal to make the call blocking rules permissive rather than mandatory. While the Commission considered mandatory rules, it both proposed and implemented permissive rules to address the concerns of voice service providers, including small businesses, that the cost and burden of complying with mandatory rules could be significant and might require implementation of new technology. The Commission also took small business concerns into consideration in its determination to not require a database of unused numbers. While the Commission considered mandating the use of a database for providers that choose to block unused numbers, such a database could impose disproportionate costs on small businesses and would be challenging to create and maintain. Similarly, the Commission considered the needs of small businesses in its guidance regarding removing blocks from valid numbers. While the Commission considered requiring specific processes or dedicated resources, it does not mandate them at this time to allow small providers to scale their efforts in accordance with their businesses and to develop a more robust record on the issue before the Commission addresses this in a future proceeding.

90. The Commission does not see a need to establish a special timetable for small entities to reach compliance with the modification to the rules. No small business has asked for a delay in implementing the rules. Small businesses may avoid compliance costs entirely by declining to block robocalls, or may delay implementation of call blocking indefinitely to allow for more time to come into compliance with the rules. Similarly, there are no design standards or performance standards to consider in this rulemaking.

Report to Congress

91. The Commission sent a copy of the *Report and Order*, including the FRFA, in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act.

Ordering Clauses

92. Pursuant to sections 201, 202, 222, 251(e), and 403 of the Communications Act of 1934, as amended, 47 U.S.C. 201, 202, 222, 251(e), 403, the *Report and Order* is adopted and that part 64 of the Commission's rules, 47 CFR 64.1200, is amended.

93. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of the *Report and Order* to Congress and the Government Accountability Office pursuant to the Congressional Review Act, *see* 5 U.S.C. 801(a)(1)(A).

94. The Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, shall send a copy of the Report and Order, including the Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

List of Subjects in 47 CFR Part 64

Telecommunications, Telephone.

FEDERAL COMMUNICATIONS COMMISSION.

Katura Jackson,
Federal Register Liaison Officer
Office of the Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends part 64 as follows:

PART 64—MISCELLANEOUS RULES RELATING TO COMMON CARRIERS

1. The authority citation for part 64 is amended to read as follows:

Authority: 47 U.S.C. 154, 202, 225, 251(e), 254(k), 403(b)(2)(B), (c), 616, 620, Pub. L. 104–104, 110 Stat. 56. Interpret or apply 47 U.S.C. 201, 202, 218, 222, 225, 226, 227, 228, 251(e), 254(k), 616, 620, and the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. 112–96, unless otherwise noted.

2. In § 64.1200, add reserved paragraphs (i) and (j) and paragraph (k) to read as follows:

§ 64.1200 Delivery restrictions.

* * * * *

(i) [Reserved]

(j) [Reserved]

(k) Voice service providers may block calls so that they do not reach a called party as follows:

(1) A provider may block a voice call when the subscriber to which the originating number is assigned has requested that calls purporting to originate from that number be blocked because the number is used for inbound calls only.

(2) A provider may block a voice call purporting to originate from any of the following:

(i) A North American Numbering Plan number that is not valid;

(ii) A valid North American Numbering Plan number that is not allocated to a provider by the North American Numbering Plan Administrator or the Pooling Administrator; and

(iii) A valid North American Numbering Plan number that is allocated to a provider by the North American Numbering Plan Administrator or Pooling Administrator, but is unused, so long as the provider blocking the calls is the allocatee of the number and confirms that the number is unused or has obtained verification from the allocatee that the number is unused at the time of the blocking.

(3) A provider may not block a voice call under paragraph (k)(1) or (2) of this section if the call is an emergency call placed to 911.

(4) For purposes of this subsection, a provider may rely on Caller ID information to determine the purported originating number without regard to whether the call in fact originated from that number.

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